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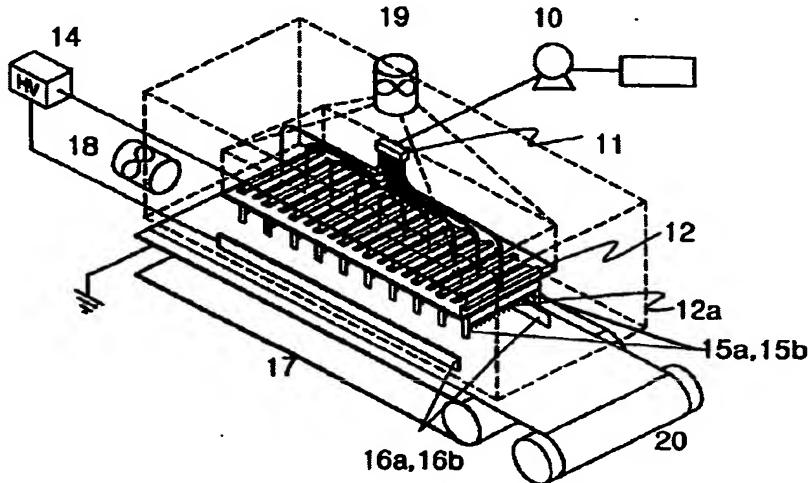
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(54) Title: A COMPLEX MEMBRANE FOR ELECTROCHEMICAL DEVICE, MANUFACTURING METHOD AND ELECTROCHEMICAL DEVICE HAVING THE SAME



(57) **Abstract:** A complex membrane for an electrochemical device such as a lithium secondary battery, its manufacturing method, and an electrochemical device having the complex membrane are disclosed. The complex membrane includes a micro-porous polyolefin membrane, and a web-phase porous membrane united to at least one side of the micro-porous polyolefin membrane and composed of nano-fibers. Since the complex membrane is capable of absorbing an electrolyte uniformly, it greatly improves performance of a battery when being used for an electrochemical device. In addition, owing to excellent mechanical strength and good binding capacity to an electrode, it helps to increase a process rate for manufacturing the battery.

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